ABSTRACT OF THE DISCLOSURE

A laser plasma X-ray generating apparatus that can promptly repair a cryo-target layer on a drum surface held at a very low temperarute using a liquid nitrogen is provided, and a drum 122 is fixed to a lower end of a shaft 121, and the drum 122 is arranged so as to be able to be moved in its rotating direction and its axle direction at an inside of the cryo-forming cover 106. And a liquid nitrogen supplying pipe 131 is inserted into the shaft 121, and a conduit 144 for supplying the target gas is connected to the cryo-forming cover 106. Further, a jacket 171 is arranged at the periphery of the cryo-forming cover 106 and a pipe 185 is arranged at the periphery of the conduit 144, resulting in forming a heat exchanger. A vapor gas of liquid nitrogen is drawn from a gap S between the shaft 121 and the pipe for supplying the liquid nitrogen 131, introducing the vapor gas between the conduit 144 and the pipe 185, further introducing the vapor gas into an inside of the jacket 171, resulting in cooling the target gas, so that efficiency of attachment of the target material is improved.